

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

KAIFI LLC,

Plaintiff,

v.

T-MOBILE US, INC. and  
T-MOBILE USA, INC.,

Defendants.

**CASE NO. 2:20-CV-281-JRG-RSP**

**JURY TRIAL DEMANDED**

**DEFENDANTS T-MOBILE US, INC. AND T-MOBILE USA, INC.'S  
RESPONSIVE CLAIM CONSTRUCTION BRIEF**

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	TECHNOLOGY BACKGROUND .....	2
III.	DISPUTED CLAIM TERMS .....	4
A.	Term 1: “indoor network” (all asserted claims).....	4
B.	Term 2: “location register that stores location information of the data communication terminal received through the indoor network or outdoor wireless internet network” (claim 1).....	8
1.	The Intrinsic Record Compels T-Mobile’s Construction .....	8
2.	KAIFI Has Admitted That the Location Register Is External to the Data Communication Terminal.....	16
3.	KAIFI’s Brief Does Not Rebut the Conclusive Intrinsic Evidence.....	18
C.	Term 3: “registered indoor system ID information” (claims 1–3, 5–7, 9–11).....	20
D.	Terms 4 & 5: “location information of the data communication terminal received through the indoor network” / “location information of the data communication terminal received through . . . the outdoor wireless internet network” (claim 1) .....	21
E.	Terms 6 & 7: “a fourth step . . .” / “a seventh step . . .” (claim 12).....	26
IV.	CONCLUSION.....	28

**TABLE OF APPENDICES AND EXHIBITS**

	<b>Document</b>
Appendix A	Text of Asserted Claims
Exhibit 1	Declaration of Peter Rysavy (Mar. 15, 2021)
Exhibit 2	Excerpts of the deposition transcript of Thomas Blackburn (Apr. 29, 2021)
Exhibit 3	AT&T <i>Markman</i> Order (Apr. 17, 2020)
Exhibit 4	Excerpts of A. Mehrotra, GSM SYSTEM ENGINEERING (1996)
Exhibit 5	Excerpts of the public version of AT&T's Motion to Strike Certain Portions of the Expert Report of Brian T. Kelley, Ph.D. (June 18, 2020)
Exhibit 6	Certified translation of Korean Patent Application No. 2001-0034976 (June 20, 2001)
Exhibit 7	Excerpts of John C. Rigdon, DICTIONARY OF COMPUTER AND INTERNET TERMS

**TABLE OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Meaning</b>
728 patent	U.S. Patent No. 6,922,728 (D.I. 1-2)
<i>AT&amp;T</i> litigation	<i>KAIFI LLC v. AT&amp;T, Inc. et al.</i> , No. 2-19-cv-00138 (E.D. Tex.)
<i>AT&amp;T Markman</i> Order	<i>KAIFI LLC v. AT&amp;T, Inc. et al.</i> , No. 2-19-cv-00138, D.I. 104 (E.D. Tex. Apr. 17, 2020) (Ex. 3)
AT&T Mot. to Strike	AT&T's Motion to Strike Certain Portions of the Expert Report of Brian T. Kelley, Ph.D. (June 18, 2020) (Ex. 5)
Blackburn Tr.	Deposition transcript of Thomas Blackburn (Apr. 29, 2021) (Ex. 2)
GSM System Engineering	A. Mehrotra, GSM SYSTEM ENGINEERING (1996) (Ex. 4)
KAIFI	Plaintiff KAIFI LLC
Korean App.	Korean Patent Application No. 2001-0034976 (June 20, 2001) (Ex. 6)
Rigdon	John C. Rigdon, DICTIONARY OF COMPUTER AND INTERNET TERMS (Ex. 7)
Rysavy Decl.	Declaration of Peter Rysavy (Mar. 15, 2021) (Ex. 1)
T-Mobile	Defendants T-Mobile US, Inc. and T-Mobile USA, Inc.

## TABLE OF AUTHORITIES

	<u>Page(s)</u>
<b>Cases</b>	
<i>ACTV, Inc. v. Walt Disney Co.</i> , 346 F.3d 1082 (Fed. Cir. 2003).....	9
<i>Becton, Dickinson &amp; Co. v. Tyco Healthcare Grp., LP</i> , 616 F.3d 1249 (Fed. Cir. 2010).....	9, 10, 11
<i>Collins v. Wayne Corp.</i> , 621 F.2d 777 (5th Cir. 1980) .....	16, 17
<i>Crossroad Sys., Inc. v. Dot Hill Sys. Corp.</i> , No. 13-cv-1025, 2015 WL 3775103 (W.D. Tex. June 16, 2015) .....	17
<i>Gigamon Inc. v. Apcon, Inc.</i> , No. 2:19-cv-300-JRG, 2020 WL 3605622 (E.D. Tex. July 2, 2020).....	11, 14
<i>Glaxo Grp. Ltd. v. Ranbaxy Pharm., Inc.</i> , 262 F.3d 1333 (Fed. Cir. 2001).....	15
<i>Huawei Techs. Co. v. Verizon Commc'ns, Inc.</i> , No. 2:20-cv-00030-JRG, 2021 WL 150442 (E.D. Tex. Jan. 15, 2021).....	10
<i>Interactive Gift Exp., Inc. v. Compuserve Inc.</i> , 256 F.3d 1323 (Fed. Cir. 2001).....	28
<i>Laitram Corp. v. NEC Corp.</i> , 62 F.3d 1388 (Fed. Cir. 1995).....	10
<i>Luminati Networks Ltd. v. Code200, UAB</i> , No. 2:19-cv-00396-JRG-RSP, 2021 WL 425101 (E.D. Tex. Feb. 8, 2021).....	10
<i>Mantech Env't Corp. v. Hudson Env't Servs., Inc.</i> , 152 F.3d 1368 (Fed. Cir. 1998).....	28
<i>Mformation Techs., Inc. v. Rsch. In Motion Ltd.</i> , 764 F.3d 1392 (Fed. Cir. 2014).....	27
<i>NTP, Inc. v. Rsch. In Motion Ltd.</i> , 418 F.3d 1282 (Fed. Cir. 2005).....	10
<i>Pioneer Corp. v. Samsung SDI Co.</i> , No. 2:06-cv-384, 2007 WL 5688764 (E.D. Tex. Dec. 27, 2007) .....	15

<i>Sparton Corp. v. United States</i> , 68 Fed. Cl. 34 (2005) .....	7
<i>Verizon Servs. Corp. v. Vonage Holds. Corp.</i> , 503 F.3d 1295 (Fed. Cir. 2007).....	11

## I. INTRODUCTION

KAIFI's brief makes every attempt possible to avoid confronting the intrinsic record of the 728 patent, which compels T-Mobile's constructions. Indeed, in its substantive arguments, KAIFI cites to extrinsic evidence—including its expert's declaration, the deposition transcript of T-Mobile's expert, and various publications—more than *three times* as often as it cites to the specification of the 728 patent. KAIFI's reluctance to turn to the text of the 728 patent is telling: KAIFI knows it can only support its constructions by ignoring the intrinsic record.

KAIFI inconsistently argues that the Court should defer to its constructions from the *AT&T* litigation—except when KAIFI disagrees with those constructions. Indeed, for two of the seven terms at issue, KAIFI (contrary to its own expert) *disagrees* with the *AT&T* constructions. KAIFI cannot have it both ways, deferring to the prior case when convenient and asking for different constructions when the prior constructions contradict its infringement theories. Where KAIFI disagrees with this Court's prior constructions, KAIFI provides no new facts that should cause the Court to diverge from its prior determinations.

T-Mobile, by contrast, is not simply revisiting the Court's prior constructions, as KAIFI suggests. Rather, T-Mobile's proposed constructions seek to resolve disputes about claim scope that have emerged since the *Markman* order in the *AT&T* litigation based on KAIFI's ever-shifting infringement theories. For example, the Court's *Markman* Order in the *AT&T* litigation did not address whether or not the claimed “location register” is “external to the data communication terminal,” as T-Mobile proposes. This is because KAIFI raised the argument that the claimed location register can be (at least in part) on the data communication terminal only recently—not only after the *AT&T Markman* Order, but after its original Infringement Contentions in this case. In fact, KAIFI expressly *disclaimed* this argument in the *AT&T* case. Only after KAIFI noticed a gaping hole in its infringement theories in this case did it reverse course to belatedly argue that the

data communication terminal was part of the claimed location register. For each disputed term, T-Mobile's constructions faithfully adhere to the intrinsic record.

KAIFI's imprecise and confusing proposals, by contrast, produce nonsensical outcomes. KAIFI's proposal for "indoor network" would cover indisputably "outdoor" networks, such as 3G and LTE cellular networks. KAIFI's proposal for "location register," which would include the data communication terminal, is not only directly contrary to its prior positions, it would nonsensically call for the data communication terminal to transmit location information to itself. KAIFI's proposal for "registered indoor system ID information" is contrary to its own expert's understanding, as well as the plain meaning provided by its own extrinsic evidence. KAIFI's proposal for the "location information" terms would result in an inoperable system, as its own expert admits. And KAIFI's proposal for the order of steps in method claim 12 defy not only its own expert's opinions, but this Court's "common sense" constructions from the *AT&T* case.

T-Mobile respectfully requests that the Court adopt T-Mobile's constructions.

## **II. TECHNOLOGY BACKGROUND**

The 728 patent relates to an "optimal" system and method for switching the connection of a user's "data communication terminal," such as a cell phone or other mobile device, between two different networks: an "indoor network" (such as a wireless local area network or WLAN) and an "outdoor wireless internet network" (such as a cellular network). 728 patent at Abstract, 1:8–17. The patented system and method purports to allow in-progress communications to be routed to a mobile device as the device moves between the indoor and outdoor networks. *See id.* at 3:9–16.

According to the patent, at the time of filing in 2001 there were alleged benefits to connecting with an indoor network when located indoors, as opposed to connecting to an outdoor wireless internet network. For example, communications over an indoor network would purportedly cost less to the user and have superior connection speed and quality over then-current



cellular technology. *Id.* at 2:1–14, 2:26–51, 14:56–61. By contrast, outdoor wireless internet networks would purportedly have higher user charges based on the volume of data transmitted and inferior connection speeds and lower quality. *Id.* at 2:1–14, 2:26–51. The 728 patent thus seeks to minimize costs by switching a user’s connection to the indoor network, when the user is located indoors, while preserving the ability to optimize service quality by switching back to the “outdoor wireless internet network” in the case, for instance, that “the indoor network is in an abnormal condition or the traffic of the indoor network is congested.” *Id.* at 2:26–33; 10:57–62.

The solution claimed in the 728 patent uses the combination of a “location register” and a “router” to “switch network paths” for a mobile device, allowing incoming communications to reach a mobile device as it moves between indoor and outdoor networks. *See id.* at 3:9–47. With respect to the “location register,” the patent explains that “[t]he present invention includes a location register for storing location information transmitted from the wireless internet terminal in order to confirm as to whether the user of the wireless internet terminal is located indoors or outdoors.” *Id.* at 3:9–13. There are two types of “location information” that can be stored in the location register, and the type of information stored depends on the mobile device’s current location. When the device is “located indoors, the location information is ***indoor system ID information***.” *Id.* at 3:50–51.<sup>1</sup> The parties agree that “indoor system ID information” is “information uniquely identifying the indoor network.” By contrast, when the mobile device “is located outdoors, the location information is information on a ***locational area***.” *Id.* at 3:48–50.

The location information stored in the location register is essential to providing the roaming service between the indoor and outdoor networks. Specifically, a “router” selects a network (*i.e.*, the “indoor network” or “outdoor wireless internet network”) based on the location

---

<sup>1</sup> All emphasis added unless otherwise noted.

information stored in the location register. As the patent explains, “[t]he present invention can switch network paths to provide the roaming service in accordance with the location information stored in the location register.” *Id.* at 3:13–15. For example, claim 1 provides that the router “determines the location of the data communication stored in the location register”—*i.e.*, using the indoor system ID information or locational area—and “provides roaming of voice/data signals provided to the user by selecting one of the indoor and the outdoor networks in accordance with the determined location of the data communication terminal.” *Id.*, cl. 1. For instance, “if it is determined that the user’s location stored in the location register has been changed from the outdoors to the indoors, the router connected with the location register transfers the voice data or incoming messages of the recipient to the indoor gateway without passing them through the outdoor wireless LAN network.” *Id.* at 10:45–51.

Thus, according to the 728 patent, by utilizing the location register and router in this manner, “a roaming service is provided through an optimal network path depending on whether the user is located indoors or outdoors.” *Id.* at 2:49–51.

### III. DISPUTED CLAIM TERMS

#### A. Term 1: “indoor network” (all asserted claims<sup>2</sup>)

T-Mobile’s Construction	KAIFI’s Construction
Plain and ordinary meaning	“a network that broadcasts system ID information able to be received within an interior of a structure”

The Court’s construction of “indoor network” from the *AT&T* case, which KAIFI proposes here, unintentionally introduced ambiguity into the 728 patent’s otherwise clear distinction

---

<sup>2</sup> KAIFI asserts independent system claim 1, with dependent claims 2–7 and 9–11, and independent method claim 12, with dependent claims 13–15 and 17–21. Attached as Appendix A is a listing of the text of the asserted claims.

between “indoor” and “outdoor” networks. As it stands, the construction would allow KAIFI to treat indisputably “outdoor” networks—like 3G and LTE cellular networks—as “indoor networks,” because those networks’ signals are “able to be received within an interior of a structure.” T-Mobile seeks to eliminate this ambiguity. The intrinsic disclosures of the 728 patent afford a jury ample guidance in distinguishing between these two types of networks. By contrast, as discussed below, KAIFI misinterprets this Court’s analysis in the *AT&T* litigation, and its proposal would require the Court to further construe the terms of this construction.

The specification provides clear guidance on the plain and ordinary meaning of “indoor network.” In the 728 patent, the indoor network is defined in terms of the equipment providing the network and the information it provides. For example, the patent explains that the indoor network is provided by a gateway or other device “disposed in a home or building.” 728 patent at 4:64–5:1. The indoor equipment “broadcasts” indoor system ID information identifying the indoor network. *See id.* at 8:52–55, 9:7–11, 10:1–4. The patent provides several examples of indoor networks, such as a Bluetooth network or wireless LAN, that facilitate communications for “equipments located at short range.” *See id.* at 2:60–63, 3:5–8. This guidance is sufficient for a jury to understand the plain and ordinary meaning of “indoor network” to determine what (if anything) in the accused products constitutes an “indoor network.”

KAIFI’s proposal, by contrast, fosters confusion. It allows any network to be an “indoor network,” so long as it broadcasts “system ID information”—an undefined term—that is “able to be received within an interior of a structure.” As T-Mobile’s expert explains, “[p]ractically any network is ‘able to be received within an interior of a structure,’ including networks that no one would consider to be an ‘indoor network,’” such as 2G and 3G cellular networks. Rysavy Decl. (Ex. 1) ¶ 52; Blackburn Tr. (Ex. 2) at 70:12–14. When this Court construed this term in the *AT&T*

litigation, the ramifications of such a broad definition were not apparent, namely that networks conventionally understood as “outdoor” networks could be considered “indoor” networks.

KAIFI’s only counter—based solely on the *ipse dixit* of its expert—is that even though cellular networks broadcast signals that are “able to be received within the interior of a structure,” they cannot be “indoor networks” because they do not broadcast “system ID information.” KAIFI Br. at 8. The problem with this deflection is that KAIFI and its expert never define “system ID information,” and certainly not in any way that would exclude outdoor networks. To the contrary, the parties propose an agreed construction for “**indoor** system ID information.” Indeed, since “**indoor** system ID information” means “information uniquely identifying the **indoor** network,” as the parties agree, then “system ID information” necessarily means “information uniquely identifying the network,” whether the network is indoors or outdoors. And it cannot be reasonably disputed that outdoor cellular networks broadcast “information uniquely identifying the network.” *See, e.g.*, GSM System Engineering (Ex. 4) at 29 (“The MS [mobile station] distinguishes between cells using the *Base Station Identification Code* (BSIC) that the cell cite broadcasts over the air.”), 73 (“The BCCH is a point-to-multipoint unidirectional control channel from the fixed subsystem to the MS that is intended to broadcast a variety of information to MSs, including information necessary for the MS to register in the system.”); *see also* Blackburn Tr. (Ex. 2) at 70:6–11.

This Court recognized that the signals of the distinct indoor network and outdoor network could overlap, for example, inside a building. *AT&T Markman* Order (Ex. 3) at 13, 21. The outdoor network does not transform into an indoor network simply because its signals penetrate the walls of the building. Indeed, in its prior analysis of this term, this Court clearly linked “indoor networks” with “**indoor** system ID information,” not generic “system ID information” that could also apply to outdoor networks. This Court relied on the specification’s disclosure that “the term

‘indoors’ can mean any regions within a range capable of receiving the system ID information *of the indoor network* identical to that registered into the data communication terminal.” *Id.* at 13 (citing 728 patent at 14:39–43). Thus, this Court recognized that “indoors” is the region capable of receiving—not just *any* system ID information—but the “system ID information *of the indoor network*.” Likewise, an indoor network does not broadcast generic “system ID information,” which could apply to outdoor networks; rather, an “indoor network” broadcasts “*indoor* system ID information.” *See* 728 patent at 3:17–22, 9:3–12.

KAIFI itself points out the discrepancy between its proposal, on one hand, and this Court’s reasoning in the *AT&T* litigation, on the other. Specifically, KAIFI mentions that, “[a]s noted in the Court’s prior claim construction analysis, the asserted claims include two different networks, an ‘indoor network’ and an ‘outdoor wireless internet network,’ where the ‘indoor network’ is identified by or corresponds to the *indoor* system ID information broadcast by the indoor gateway.” KAIFI Br. at 6. Thus, KAIFI itself recognizes that the “indoor network” is “identified by”—not just *any* system ID information—but *indoor* system ID information.

T-Mobile’s proposal seeks only to clarify the intent behind this Court’s prior construction, and the most simple means of doing so is returning to the plain meaning and clear disclosures of the specification, as explained above.<sup>3</sup> *See* 728 patent at 3:23–47, 8:40–43, 10:5–13, 11:39–50, 13:12–15. This Court should reject KAIFI’s proposal, which simply invites confusion.

---

<sup>3</sup> Altering KAIFI’s proposed construction of “indoor network” to be “a network that broadcasts *indoor* system ID information able to be received within an interior of a structure” would create unhelpful circular constructions. The agreed construction of “indoor system ID information”—“information uniquely identifying the indoor network”—itself uses “indoor network.” *See Sparton Corp. v. United States*, 68 Fed. Cl. 34, 47 (2005) (stating that “a circular definition (*i.e.*, one that uses the word that it attempts to define in the definition itself) . . . [is] clearly improper”).

**B. Term 2: “location register that stores location information of the data communication terminal received through the indoor network or outdoor wireless internet network” (claim 1)**

<b>T-Mobile’s Construction</b>	<b>KAIFI’s Construction</b>
“location register external to the data communication terminal that stores location information of the data communication terminal”	“location register” should be construed as “register that records the location of the data communication terminal.” The remainder of this term does not require construction.

This term presents a straightforward and singular question for the Court to decide: whether the claimed “location register” is external to the data communication terminal as T-Mobile contends, or whether the data communication terminal can be part of the “location register” as KAIFI contends. As discussed immediately below, the intrinsic record draws a sharp distinction between the data communication terminal and the location register, which is part of the claimed outdoor wireless internet network. In the words of KAIFI’s own expert in the *AT&T* litigation, “[t]he location register that is being referred to [in the 728 patent] *is on the network side*”—not in the user equipment. *AT&T Mot. to Strike* (Ex. 5) at 10 n.11 (quoting Dr. Kelley’s Opening Infringement Report in the *AT&T* litigation). KAIFI cannot run from this admission, which is supported by the entirety of the intrinsic record. The Court should therefore adopt T-Mobile’s construction.

**1. The Intrinsic Record Compels T-Mobile’s Construction**

Throughout the claims and specification of the 728 patent, the data communication terminal and location register are separate entities, such that the data communication terminal sends information to (but is not part of) the location register. KAIFI never attempts to show otherwise. KAIFI’s brief, instead, focuses almost exclusively on the question of whether a location register in the 728 patent must be at a single physical location or whether it can be “distributed” among various components. But that question is not raised by the parties’ competing constructions

and is irrelevant to whether the location register can be (at least in part) on the data communication terminal. Furthermore, in addressing this irrelevant question, KAIFI turns the claim construction process on its head, relying almost exclusively on extrinsic evidence in support of its position. Indeed, KAIFI cites to the 728 patent just *twice* in the entire section (neither of which supports KAIFI's proposed construction), while citing to extrinsic evidence *over thirty times*. The intrinsic record confirms that the location register of the 728 patent is external to the data communication terminal, and KAIFI never cites anything in the intrinsic or extrinsic record to the contrary.

**a) The Claims Require a Location Register External to the Data Communication Terminal**

As the Federal Circuit has repeatedly emphasized, the claim construction inquiry “must begin, and remain centered, on the language of the claims themselves.” *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003). Here, the entire structure of the claims—which KAIFI does not address at all—leaves no doubt that the location register is external to the data communication terminal.

First, the preamble of claim 1 recites “providing internet communication service to a data communication terminal . . . using an outdoor wireless internet network including an antenna, a router and a location register.” 728 patent at 15:9–16. Thus, from the very beginning, claim 1 treats the location register as a separate component from the data communication terminal that is located in “an outdoor wireless internet network”—*i.e.*, not on the mobile device. *See id.*

Next, the body of claim 1 recites “a data communication terminal” as a separate element from “a location register,” again telling a person of ordinary skill in the art that one is not part of the other. *See* 728 patent at 15:17–24, 15:31–34; *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the

patented invention.” (internal quotations omitted)). Furthermore, claim 1 requires that the location register “stores location information *of the data communication terminal* received through the indoor network or outdoor wireless internet network,” 728 patent at 15:31–33, and that a router “determines the location *of the data communication terminal* stored in the location register,” *id.* at 15:35–40. The claims thus contemplate one element—a location register—receiving and storing information about a separate element—a data communication terminal. *See NTP, Inc. v. Rsch. In Motion Ltd.*, 418 F.3d 1282, 1300 (Fed. Cir. 2005) (holding that the “gateway switch” is a separate component from the “originating processor” because the claims require that information “is *transmitted from* an ‘originating processor’ *to* a gateway switch” (emphasis in original)).<sup>4</sup>

That the location register in claim 1 is external to the data communication terminal is further evidenced by dependent claim 4. *See Laitram Corp. v. NEC Corp.*, 62 F.3d 1388, 1392 (Fed. Cir. 1995) (holding that “dependent claims can aid in interpreting the scope of claims from which they depend”). Specifically, claim 4 requires that “the data communication terminal informs the location register that the terminal is located indoors by registering its location into the location register.” 728 patent at 15:53–62. KAIFI’s proposal would nonsensically require the data communication terminal to inform itself that it is indoors by registering its location into itself. *See*

---

<sup>4</sup> *See also Becton, Dickinson & Co.*, 616 F.3d at 1254–55 (holding that a “hinged arm” and a “spring means” cannot be the same structure because “[i]f the hinged arm and the spring means are one and the same, then the hinged arm must be ‘connected to’ itself and must ‘extend between’ itself and a mounting means, a physical impossibility”); *Huawei Techs. Co. v. Verizon Commc’ns, Inc.*, No. 2:20-cv-00030-JRG, 2021 WL 150442, at \*9 (E.D. Tex. Jan. 15, 2021) (“The [data block buffer and control buffer] are separately recited in the claims. Thus, the plain meaning based on the claim language reflects that the buffers are necessarily distinct structures.”); *Luminati Networks Ltd. v. Code200, UAB*, No. 2:19-cv-00396-JRG-RSP, 2021 WL 425101, at \*7 (E.D. Tex. Feb. 8, 2021) (holding that the claims “indicate[d] the distinction” among the client device, the first server/second server, and the web server, such that one component could not simultaneously serve as more than one).



*Becton, Dickinson & Co.*, 616 F.3d at 1255 (“A claim construction that renders asserted claims facially nonsensical cannot be correct.” (internal quotation marks omitted)).

**b) The Specification Consistently Describes the Location Register as External to the Data Communication Terminal**

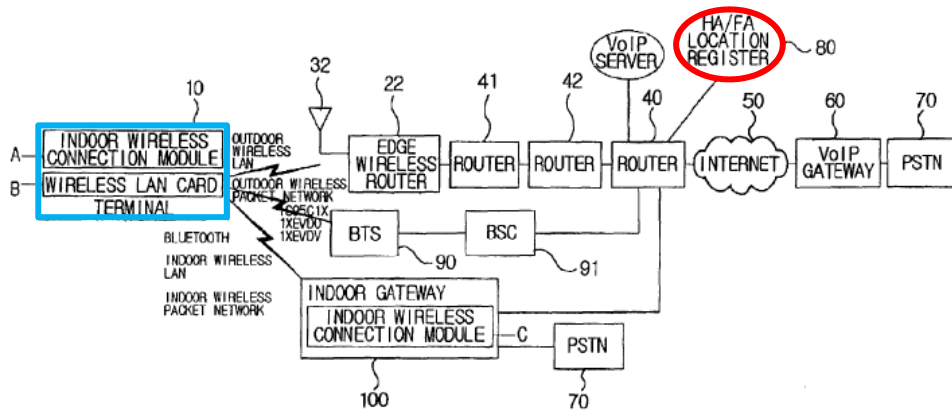
Throughout the specification of the 728 patent, the location register is consistently and uniformly shown to be external to the data communication terminal. Starting with the Summary of the Invention, the 728 patent emphasizes that “[t]he present invention includes a location register for storing location information transmitted from the wireless internet terminal.” 728 patent at 3:9–13; *see also Verizon Servs. Corp. v. Vonage Holds. Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007) (construing claims based on “present invention” language). Because the location register receives information “transmitted from the wireless internet terminal”—*i.e.*, the data communication terminal—the location register of the “present invention” must necessarily be external to the data communication terminal. That is, the data communication terminal would not “transmit” information to the location register if it were part of the location register already; it is axiomatic that a component does not “transmit” information to itself. *See, e.g., Gigamon Inc. v. Apcon, Inc.*, No. 2:19-cv-300-JRG, 2020 WL 3605622, at \*10–11 (E.D. Tex. July 2, 2020) (finding that the claim terms “network port” and “instrument port” could not refer to the same structure where the specification disclosed “establish[ing] a logical connection *between* the network port and the instrument port” for “forward[ing] packets received from the traffic production network *through* the network port *to* the instrument port.” (emphasis in original)).

KAIFI’s proposed construction, in fact, frustrates the very purpose of the 728 patent. As explained above, the purpose of storing location information of the data communication terminal in a location register is to allow a router to determine from the location register where to route an in-process communication—either over the indoor network or outdoor wireless internet network

depending on the terminal's location. *See* 728 patent at 3:9–15; *see also supra* Section II. It would make no sense in the context of this patent if the router queried the mobile device itself to determine how to route communications to that very device; indeed, such a reading would make the location register completely superfluous.

The Detailed Description of the Invention likewise shows that the location register is external to the data communication terminal. First, every figure depicting the configuration of the location register in relation to the data communication terminal clearly and unambiguously shows their separateness. *See* 728 patent at Figs. 1a, 1b, 2 (showing HA/FA LOCATION REGISTER 80 separate from TERMINAL 10). For example, Figure 2—which is described as “the system of the present invention”—shows the location register (80) (red) as an element of the network that is separate from and external to the data communication terminal (10) (blue):

*FIG. 2*



*Id.* at Fig. 2 (annotated).

Next, in describing “the optimal wireless internet network connecting and roaming system . . . according to the present invention,” the 728 patent explicitly describes the “location register” as part of an “external network,” which external network also includes the internet, internet servers, a VoIP gateway, and a PSTN:

As shown in FIG. 2, the system of the present invention comprises of an outdoor wireless LAN network including the access point 22, the antenna 32 and the router 40 or the wireless packet network including the BTS 90, the BSC 91 and the router 40, as shown in FIG. 1; an indoor network including an indoor gateway 100; and ***an external network including the location register 80***, the internet 50 including a plurality of internet servers, a VoIP gateway 60 and a PSTN.

*Id.* at 8:31–42. Indeed, as shown above in Figure 2, the external network containing the location register (80) connects to a router (40), which is part of “an outdoor wireless LAN network” that is distinct from and connects to the indoor network through an indoor gateway (100). Neither Figure 2 nor the accompanying text permits any construction of location register by which that register could be located within the data communications terminal (10). *See id.* at 8:31–9:20, Fig. 2.<sup>5</sup>

Furthermore, every embodiment in the 728 patent, without fail, describes a procedure by which the data communication terminal registers its location into the location register—a procedure that would be unnecessary if the data communication terminal were part of the location register. For example, in the embodiment shown in Figure 3, “PDA 10 registers the location thereof into the location register 80 based on the mobile IP message through the path constructed by the antenna 32, the access point 22, and the routers 41, 42, 40 after going through authentication by the location register 80.” *Id.* at 9:47–53. In other words, the data communication terminal (PDA 10) sends a registration message that passes through an access point and multiple routers

---

<sup>5</sup> KAIFI refers to these just as an “embodiment” of the invention, suggesting that the claims contemplate the data communication terminal as part of the location register. KAIFI Br. at 9. This is incorrect. As noted above, Figure 2 is described as “the system of the present invention,” not just as one possible configuration of the system. 728 patent at 9:24–25. Indeed, every embodiment in the 728 patent, including the embodiments associated with the flows in Figures 3 through 6, all depend on the architecture of Figure 2. For example, prior to the description of the flowchart in Figure 3, the 728 patent states that “a method of switching the connection with the wireless internet network when the user moves indoors while making a wireless internet call by using the system of the present invention shown in FIG. 2 will be described with reference to FIG. 3.” *Id.* at 9:22–25. The explanations of Figures 4 through 6 similarly rely on the system of Figure 2. *See, e.g., id.* at 11:34–38, 11:55–63, 12:59–65, 14:14–17 (all describing a system with indoor gateway 100, which is shown only in Figure 2).

before being received by the location register. Certainly, the location register in this embodiment is external to the data communication terminal, as it is in all other embodiments, including the embodiments shown in Figures 4 through 6. *See id.* at 11:30–33 (data communication terminal separate from location register in Figure 4 flow); *id.* at 12:66–13:3 (same for Figure 5 flow); *id.* at 14:8–12 (same for Figure 6 flow); *see also Gigamon*, 2020 WL 3605622, at \*10–11.

Indeed, throughout the entirety of the specification, the location register is treated as an entity separate from the data communication terminal. For example, each of the following passages recognizes a distinction between the data communication terminal and the location register:

- “Before the switching of the communication route, the location of the ***data communication terminal*** is authenticated by a ***location register*** and stored therein.” 728 patent at Abstract.
- “The present invention includes a ***location register*** for storing location information transmitted from the ***wireless internet terminal*** in order to confirm as to whether the user of the wireless internet terminal is located indoors or outdoors. The present invention can switch network paths to provide the roaming service in accordance with the location information stored in the ***location register***.” *Id.* at 3:9–16.
- “[T]he ***location register*** stores location information of the data communication terminal received through the indoor network or outdoor wireless internet network . . . .” *Id.* at 3:40–42.
- “FIG. 1a shows the configurations of an outdoor wireless LAN network connected with the internet through an access point, and a wireless packet network. The outdoor wireless LAN network includes a ***data communication terminal*** 10; antennas 31, 32; access points 21, 22; a plurality of routers 41, 42, 43; and a ***location register*** 80.” *Id.* at 6:34–40.
- “FIG. 1b shows the configuration of an outdoor wireless LAN network connected with the internet through a wireless router. The outdoor wireless LAN network includes a ***data communication terminal*** 10; antennas 34, 35; a subscriber wireless router 44; an edge wireless router 45; a router 46; and a ***location register*** 80.” *Id.* at 6:48–53.
- “That is, if the ***PDA*** 10 cannot receive the registered system ID information of the indoor network, the ***PDA*** 10 registers the location thereof into the ***location register*** 80 based on the mobile IP message through the path constructed by the antenna 32, the access point 22, and the routers 41, 42, 40 after going through authentication by the location register 80.” *Id.* at 9:47–53.

- “At this time, the *PDA* 10 goes through authentication by the *location register* 80 and registers its location into the *location register* 80 through the outdoor wireless LAN network.” *Id.* at 11:30–33.

There is no suggestion, let alone an embodiment, in which the data communication terminal is part of the location register. Indeed, KAIFI has filed a claim construction brief of 24 pages and served two expert declarations totaling 37 pages, and still has not cited a single embodiment in which the 728 patent describes the data communication terminal as part of the location register.<sup>6</sup>

**c) The Korean Priority Application Confirms the Separateness of the Location Register and Data Communication Terminal**

Korean Application No. 2001-0034976, to which the 728 patent claims priority, further confirms that the location register is external to the data communication terminal. *See Glaxo Grp. Ltd. v. Ranbaxy Pharm., Inc.*, 262 F.3d 1333, 1337 (Fed. Cir. 2001) (holding that a foreign priority application is part of the prosecution history and is relevant to claim construction); *Pioneer Corp. v. Samsung SDI Co.*, No. 2:06-cv-384, 2007 WL 5688764, at \*23–25 (E.D. Tex. Dec. 27, 2007) (considering a party’s translation of a Korean foreign priority application as part of intrinsic record during claim construction). For example, in a section of the application describing “[t]he present invention,” the application describes “[a] location register for storing location information of the data communication terminal transmitted from the data communication terminal to the outdoor wireless internet network.” Korean App. (Ex. 6) ¶¶ 19, 29. Thus, the Korean application confirms two truths regarding the location register of the 728 patent: (1) because the location register receives location information “*transmitted from*” the data communication terminal, the location

---

<sup>6</sup> Nor could KAIFI’s expert, despite repeated invitations, identify any such embodiment or teaching in his deposition. Blackburn Tr. (Ex. 2) at 70:24–71:5 (testifying “I don’t know if there is [such an] example”), 72:15–17 (testifying that Figure 1A does not disclose such an embodiment), 74:1–5 (testifying that Figure 1B “doesn’t show” the location register as being part of the data communication terminal), 76:19–25, 82:1–2 (testifying that Figure 2 “is kind of confusing” and that he “can’t tell” if the location register is external to the data communication terminal).

register must be external to the data communication terminal, and (2) the location register is located in an *outdoor wireless internet network*—*i.e.*, not even partly in the data communication terminal.

## 2. KAIFI Has Admitted That the Location Register Is External to the Data Communication Terminal

KAIFI has repeatedly admitted—both in this litigation and in the prior litigation against AT&T—that the claimed “location register” is external to the data communication terminal. First, during the *AT&T* litigation, KAIFI’s technical expert, Dr. Kelley, *expressly disavowed* the argument that the claimed “location register” in the 728 patent could be found in the user equipment (“UE”). In that case, KAIFI’s technical expert correctly acknowledged that the “location register” of the 728 patent was part of the network, external to the data communication terminal:

The location register that is being referred to here [in the 728 patent] *is on the network side.*

AT&T Mot. to Strike (Ex. 5) at 10 n.11 (quoting Dr. Kelley’s Opening Infringement Report in the *AT&T* litigation).<sup>7</sup> See *Collins v. Wayne Corp.*, 621 F.2d 777, 781 (5th Cir. 1980), *superseded by rule on other grounds* (holding that an expert’s testimony was admissible as a statement of a party opponent).

Then, in this case, in describing the purported inventiveness of the 728 patent in opposition to T-Mobile’s Motion to Dismiss for Lack of Patent Eligibility, KAIFI emphasized the alleged

---

<sup>7</sup> T-Mobile requested that KAIFI produce relevant documents from the *AT&T* litigation, including this expert report. KAIFI refused to produce several of these documents, including this expert report showing that KAIFI is taking positions in this litigation that are fundamentally inconsistent with those it took in the *AT&T* litigation. Thus, pending before the Court is T-Mobile’s motion to compel production of such documents. See D.I. 100. Fortuitously, KAIFI was unable to hide this admission regarding the “location register” from T-Mobile and the Court because it was quoted in the public version of AT&T’s Motion to Strike Certain Portions of the Expert Report of Brian T. Kelley, Ph.D. If T-Mobile’s pending motion to compel is resolved, and KAIFI is required to produce the underlying report quoted here, T-Mobile will supplement this submission to provide the underlying report, and identify any further admissions, to the Court.

technological improvement in a data communication terminal that “updates the location information in the *network’s location register*”:

The terminal then updates the location information in the *network’s location register* and based on the updated location information, the network can then correctly decide whether the traffic should go through the indoor gateway or not.

KAIFI Sur-reply re MTD (D.I. 85) at 6. There would be no need for the terminal to update the “network’s location register” if the terminal itself included the location register.

Similarly, in providing an overview of the patent in its opposition to the motion to dismiss, KAIFI described a specific process in which a data communication terminal *receives* indoor system ID information for an indoor network *and then passes* that information to a location register in the system:

[1] The terminal receives the indoor system ID information . . . [2] *The received indoor system ID information (or lack thereof) is provided to the location register included in the system* so that the location register “stores location information of the data communication terminal received through the indoor network or outdoor wireless internet network.”

KAIFI Opp. to MTD (D.I. 77) at 5 (citation omitted). If the data communication terminal were part of the location register, as KAIFI now asserts, step [2] would be superfluous—there would be no need for the data communication terminal to “provide” the location information to itself.

These admissions are literally the exact opposite of what KAIFI now argues—*i.e.*, that a user’s data communication terminal is part of the claimed location register. KAIFI has since engaged a new expert and presented a new interpretation of the claims. But these prior admissions of KAIFI should conclude this inquiry. *See Crossroad Sys., Inc. v. Dot Hill Sys. Corp.*, No. 13-cv-1025, 2015 WL 3775103, at \*12 (W.D. Tex. June 16, 2015) (rejecting plaintiffs’ attempt to “take[] a different position [in claim construction] than in previous cases in a clear attempt to broaden the [disputed] term’s scope”). The Court should reject KAIFI’s attempt to backtrack from these positions.

### 3. KAIFI's Brief Does Not Rebut the Conclusive Intrinsic Evidence

Far from grappling with the extensive intrinsic evidence confirming that the location register is external to the data communication terminal, KAIFI's brief relies almost exclusively on extrinsic evidence to argue tangential (if not completely irrelevant) issues.

First, KAIFI incorrectly argues that T-Mobile's construction is "absurd" because it "preclude[es] the mobile phone from storing and making available to the network information about its location in order to allow switching decisions to be made." KAIFI Br. at 9. To the contrary, T-Mobile's argument *relies* on the fact that, as the 728 patent makes clear, the data communication terminal sends location information *to* the network, including the network's location register. *See, e.g., supra* Section II; 728 patent at 3:9–11 ("The present invention includes a location register for storing location information transmitted from the wireless internet terminal . . ."). But *sending information to* a location register does not make the data communication terminal *part of* the location register, any more than providing one's location to a 911 operator makes one part of the police force. Even under T-Mobile's proposed construction, the data communication terminal may "stor[e] and mak[e] available to the network information about its location." *See* KAIFI Br. at 9.

Next, KAIFI devotes several pages of its brief to the irrelevant (and incorrect) argument that the claims do not "require a location register to be a single physical structure," but rather that a location register can be "distributed" across multiple network elements. *See* KAIFI Br. at 9–14. In support of this argument, KAIFI cites extrinsic publications (including one post-dating the patent by several years) regarding a "distributed router" and a "distributed home agent." *See id.* at 10–11. Whether others in the art had experimented with or even perfected "distributed" architectures misses the point. There is nothing in the 728 patent that suggests—let alone discloses—a distributed location register. Indeed, the very idea of a distributed location register



is contrary to every description of the location register in the patent. As explained above, the location register of the claims contains one piece of information: “location information.” 728 patent at 3:9–13. The claimed “router” then accesses the “location information” to determine which network to select. *See id.* at 3:13–15. KAIFI does not explain how this single piece of information can or would be distributed across multiple network components, nor how the claimed router would know from which part of a distributed architecture to access this single piece of information. *See* Rysavy Decl. (Ex. 1) ¶¶ 46–47.

In any event, whether the claimed location register must be a single physical structure is not relevant to the central dispute: whether the location register—regardless of its physical structure—must be external to the data communication terminal. For this reason, KAIFI’s extensive citations to Mr. Rysavy’s deposition are simply irrelevant to the issue in dispute. *See* KAIFI Br. at 11–14.

Finally, KAIFI argues that “a mobile terminal must determine its location in relation to other network elements.” KAIFI Br. at 15. For example, KAIFI argues that a mobile device “must define its location with relation to other network elements, for example, a satellite, a Wi-Fi base station, or a cellular base station.” *Id.* at 16. This too is irrelevant. While claim 1 of the 728 patent requires location information stored in the location register, how that “location information” is generated is not dictated by the 728 patent or claims. T-Mobile’s proposed construction does not preclude the data communication terminal from storing location information prior to transmitting it to the location register. Again, as explained above, the act of storing and then transmitting location information to a location register does not turn the data communication terminal itself into the claimed location register.

For these reasons, T-Mobile’s construction should be adopted.

**C. Term 3: “registered indoor system ID information” (claims 1–3, 5–7, 9–11)**

<b>T-Mobile’s Construction</b>	<b>KAIFI’s Construction</b>
No additional construction needed beyond construction of “indoor system ID information.”	“indoor system ID information for which the data communication terminal has been granted access”

The parties agree that “indoor system ID information” means “information uniquely identifying the indoor network.” The only dispute here is whether a jury needs to be told the meaning of “registered”—a concept that jurors encounter potentially on a daily basis. KAIFI’s proposed construction, which essentially replaces one word (“registered”) with ten, is not only unnecessary, it is contrary to the plain meaning.

The 728 patent uses the term “registered” in its ordinary sense. 728 patent at 12:59–65 (“[T]he PDA . . . determines whether the received indoor system ID information is identical to the stored (registered) indoor system ID information.”), 8:20–23, 10:9–13; Rysavy Decl. (Ex. 1) ¶ 57. KAIFI does not show that “registered” means anything different in the context of the 728 patent than it does in other context with which jurors are already familiar. *See* KAIFI Br. at 18–19.

KAIFI argues that this term requires construction because T-Mobile’s expert, Peter Rysavy, “could not offer an intelligible definition” of “registered” during his deposition. KAIFI Br. at 17–18. This misstates the facts. During deposition, Mr. Rysavy credibly testified that he could not provide a dictionary definition of the term “registered” on the spot, but that the meaning would be readily understood by a jury from the jurors’ personal experience with registering for classes, registering a car, and registering to vote. *See* Rysavy Decl. (Ex. 1) ¶ 57. In each of these examples, information is provided and the recipient of the information (*e.g.*, university or agency) keeps a record of the thing being registered. A juror will be able to apply the plain and ordinary meaning of “registered” in the context of the 728 patent to determine if the “indoor system ID information” has been registered.

KAIFI's construction, by contrast, is contrary to the plain meaning. KAIFI essentially equates "registered" with "has been granted access." But being "registered" requires more. KAIFI's own extrinsic evidence defines "register" as "[t]o provide your name and contact information to an organization . . .," and "registered user" as "[s]omeone who visits a Web site and purposefully supplies personal information, such as name, address, and phone number." Rigdon (Ex. 7) at 969. A convenience store "grants access" to hundreds of customers every day. Similarly, a public swimming pool may "grant access" to hundreds of guests. But those customers and guests are not "registered" in any sense of the word.<sup>8</sup>

For these reasons, "registered indoor system ID information" needs no construction beyond the construction of "indoor system ID information," and KAIFI's proposal should be rejected.

**D. Terms 4 & 5: "location information of the data communication terminal received through the indoor network" / "location information of the data communication terminal received through . . . the outdoor wireless internet network" (claim 1)**

T-Mobile's Construction		KAIFI's Construction
"location information of the data communication terminal received through the indoor network"	"the indoor system ID information" <sup>9</sup>	"location information" should be construed as "information on a locational area or indoor system ID information or both." The remainder of these terms do not require construction.
"location information of the data communication terminal received through . . . the outdoor wireless internet network"	"locational area"	

<sup>8</sup> Indeed, while KAIFI's expert struggled to provide a definition of "registered," calling it "kind of complex," he testified that it requires a comparison of "registered ID" with "received system ID" before the data communication terminal is "granted access to the system." Blackburn Tr. (Ex. 2) at 111:7–15. Thus, even KAIFI's expert agrees that to be "registered" requires more than simply "granting access."

<sup>9</sup> In the P.R. 4-3 Joint Claim Construction and Prehearing Statement, T-Mobile proposed that "location information of the data communication terminal received through the indoor network"

By its own expert's admission, KAIFI's proposed construction would result in an inoperable system. T-Mobile's construction, consistent with the intrinsic record and supported by KAIFI's expert, requires specific (and different) types of "location information" for a connection to an indoor network, on the one hand, and for a connection to an outdoor wireless internet network, on the other. As repeatedly confirmed by KAIFI's expert, when a device is connected via the indoor network (*i.e.*, the location information is "received through the indoor network"), the location information is the "indoor system ID information," and when a device is connected via the outdoor wireless internet network (*i.e.*, the location information is "received through . . . the outdoor wireless internet network"), the location information is a "locational area." *See, e.g.*, Blackburn Tr. (Ex. 2) at 118:2–5, 118:18–22, 120:7–15.

In the 728 patent, the location register stores "location information of the data communication terminal," which is used by the router to select between the indoor and outdoor networks. 728 patent at 15:31–33; *see also id.* at 3:9–13, 7:41–43. As recited in claim 1 of the 728 patent, the location register "stores location information of the data communication terminal received through the indoor network or outdoor wireless internet network." *Id.* at 15:31–33. In other words, the claims distinguish between the "location information of the data communication terminal received through the indoor network" (*i.e.*, when a device is connected to the indoor network) and the "location information of the data communication terminal received through . . . the outdoor wireless internet network" (*i.e.*, when a device is connected to the outdoor wireless internet network).

---

be construed as "indoor system ID information." D.I. 109-1 at 4. T-Mobile clarifies here that this phrase should be construed as "*the* indoor system ID information" because "indoor system ID information" is previously recited in claim 1. *See* 728 patent at 15:18–24.

The specification of the 728 patent dictates what “location information” is stored in the location register in each of these two situations. Specifically, in the Summary of the Invention, the 728 patent describes the “present invention” as follows:

When the data communication terminal is located outdoors, the location information is information on a locational area; and when it is located indoors, the location information is indoor system ID information.

*Id.* at 3:48–51. The Detailed Description of the Invention likewise reiterates:

The information stored in the location register 80 is information on a locational area when the data communication terminal is located outdoors. On the other hand, when the terminal is located indoors, it is indoor system ID information.

*Id.* at 9:16–20. Only T-Mobile’s constructions reflect these features of the 728 patent.

Under KAIFI’s proposed constructions, the claims would be met if a location register stores **only** the indoor system ID information when a device attempts to connect to the outdoor wireless internet network, or **only** a locational area when a device attempts to connect to the indoor network. Not only are these examples never described in the patent (and KAIFI never argues that they are), they would not work. *See* Rysavy Decl. (Ex. 1) ¶ 36. The 728 patent explains that the “location information” is stored in a location register “to confirm as to whether the user of the wireless internet terminal is located indoors or outdoors.” 728 patent at 3:9–13. The system then “switch[es] network paths to provide the roaming service in accordance with the location information stored in the location register.” *Id.* at 3:13–15. KAIFI never attempts to explain how the claimed system could provide services to an **outdoor** wireless internet network if the location register stores only the **indoor** system ID information. Indeed, KAIFI’s expert unambiguously testified that would be impossible. Blackburn Tr. (Ex. 2) at 120:12–15, 121:5–13.

The system would likewise be inoperable if the location register stored only a locational area when a device is connected to an indoor network. The “indoor system ID information” of the 728 patent is “unique,” which allows the system to route communications to the data

communication terminal when it is connected to an indoor network. *See* 728 patent at 8:47–55; Rysavy Decl. (Ex. 1) ¶ 36. For example, when a user is connected to an indoor network, “information provided from the internet is transferred to the indoor gateway 100 in accordance with the user location information stored in the location register 80 without passing through the outdoor wireless LAN network.” 728 patent at 11:64–12:1. In short, the system would not be able to transmit data to an indoor network in accordance with the “location information” in the location register unless that location information includes at least the indoor system ID information, as required by only T-Mobile’s construction. Rysavy Decl. (Ex. 1) ¶ 36. Again, KAIFI’s expert unequivocally and repeatedly agreed. Blackburn Tr. (Ex. 2) at 118:18–22, 120:7–11, 121:14–19, 125:3–13.

KAIFI raises only two erroneous arguments in rebuttal to T-Mobile’s constructions. KAIFI argues that T-Mobile’s construction excludes a preferred embodiment in which **both** the locational area and indoor system ID information are stored in the location register. KAIFI Br. at 20 (citing 728 patent at 4:23–24). This argument misinterprets T-Mobile’s constructions, which do not preclude storing both types of location information. Rather, T-Mobile’s constructions require that **at least** a locational area is stored when the data communication terminal is connected to the outdoor wireless internet network, and **at least** the indoor system ID information is stored when the terminal is connected to the indoor network. The claims (and T-Mobile’s constructions) do not preclude storing **additional** information in the location register, and T-Mobile’s constructions do not exclude any embodiments.

KAIFI also argues that T-Mobile’s constructions are essentially the same as those proposed in the *AT&T* litigation, which the Court rejected. KAIFI Br. at 20. This too is incorrect. In the *AT&T* litigation, the Court addressed the meaning of “location information,” as a standalone term,

and construed “location information” as “information on a locational area or indoor system ID information or both.” AT&T *Markman* Order (Ex. 3) at 36. T-Mobile agrees with that construction. The Court, however, did not specifically address whether the full limitation at issue here (*i.e.*, “location information of the data communication terminal received through the indoor network or the outdoor wireless internet network”) provides any further definition regarding *when* the different types of location information would be utilized. *See id.* at 35–36.

T-Mobile’s constructions make explicit what is clear from the claims and specification of the 728 patent: when a data communication terminal is connected via an indoor network, the location information for that device must include *at least* the indoor system ID information, and when a data communication terminal is connected via an outdoor wireless internet network, the location information for that device must include *at least* locational area. Again, KAIFI’s expert unequivocally agrees:

Q So based on our examples that we just went through of -- before, the *location information* of the data communication terminal received through the *outdoor* wireless network would be the *locational area*; is that correct?

A Yes.

Q And so on the same -- along the same lines, the *location information* of the data communication terminal received through the *indoor* network would be the *indoor system ID information*; is that correct?

A Yes.

Blackburn Tr. (Ex. 2) at 122:21–123:7. T-Mobile respectfully requests that the Court adopt the constructions proposed by T-Mobile and supported by KAIFI’s expert.

**E. Terms 6 & 7: “a fourth step . . .” / “a seventh step . . .” (claim 12)**

	<b>T-Mobile’s Construction</b>	<b>KAIFI’s Construction</b>
“a fourth step of connecting with the internet network by switching connection of the data communication terminal from the outdoor wireless internet network to the indoor gateway and making wireless communications through the indoor gateway and an indoor wireless connection module”	The fourth step is required to occur after and not before the third step; otherwise, plain and ordinary meaning applies.	Does not require construction.
“a seventh step of switching the connection of the data communication terminal from the indoor gateway to the outdoor wireless internet network and performing the first step again”	The seventh step is required to occur after and not before the sixth step; otherwise, plain and ordinary meaning applies.	Does not require construction.

T-Mobile’s constructions—which are the Court’s prior constructions of these terms—make clear that the fourth and seventh steps must occur after and not before the third and sixth steps, respectively. In providing these exact constructions in the *AT&T* litigation, the Court reasoned not only that “the intrinsic evidence indicates that before the data communication terminal can be connected with the internet network (*i.e.*, the fourth step) there must be an authentication of indoor location of the data communication terminal (*i.e.*, the third step),” but also that “it is common sense that the authentication step must occur before the connecting step.” *AT&T Markman* Order (Ex. 3) at 56–57. Moreover, KAIFI’s own expert testified that he agrees with the Court’s prior constructions (and therefore T-Mobile’s constructions). *Blackburn Tr.* (Ex. 2) at 37:21–38:1. T-Mobile requests that the Court again enter the same constructions for at least the same reasons.

These constructions are not controversial. The totality of the specification, including every embodiment, confirms that the claimed switching (*e.g.*, from the outdoor wireless internet network



to the indoor network in the fourth step or from the indoor network to the outdoor wireless internet network in the seventh step) occurs after completion of authenticating and storing the location in the location register. *See* 728 patent at 10:9–21, 11:34–55, 13:8–19, 14:14–17, Figs. 3–6. For example, in Figure 3 the step “REGISTER LOCATION CHANGE INTO LOCATION REGISTER USING MOBILE IP THROUGH INDOOR OR OUTDOOR NETWORK AND GO THROUGH AUTHENTICATION OF LOCATION BY LOCATION REGISTER” (step S13) occurs before the switching communications to the indoor network. *Id.* at 10:5–21, Fig. 3. The same is true of the related steps in Figures 4 through 6—*i.e.*, steps S23, S32, S39, S62, S69 occur before switching from one network to another. *See id.* at 11:30–55, 13:7–11, 13:44–54, 14:8–32, Figs. 4–6.

KAIFI admits that the “authentication event” of steps three and six must occur before switching the connection in steps four and seven, respectively. *See* KAIFI Br. at 23–24. KAIFI contends, however, that the “storing event” in steps three and six can still occur after switching. *See id.* Not only is this inconsistent with the entirety of the specification (as explained above), but if the “storing” were allowed to occur out of order, then the “storing” of the location in the location register would be superfluous. The purpose of the location being stored in the location register is to allow the network to make a decision regarding switching based on the location. *See* 728 patent at 3:13–15 (“The present invention can switch network paths to provide the roaming service in accordance with the location information stored in the location register.”). Storing a location in the location register serves no purpose in the 728 patent unless done before a decision is made on switching network paths. *See Mformation Techs., Inc. v. Rsch. In Motion Ltd.*, 764 F.3d 1392, 1399–1400 (Fed. Cir. 2014) (construing method claim to require an order where a step would “become superfluous” if no order were required).

KAIFI presents the very same arguments it did in the *AT&T* case, namely that “the ’728 Patent does not impose any specific order” on these steps, and the claim must therefore not be construed to require an order. KAIFI Br. at 22 (citing *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001)); *see also* *AT&T Markman* Order at 54–55. KAIFI’s argument is (still) incorrect. Here, as explained above, authentication and storing must occur prior to switching, both as a matter of how the invention is described in the 728 patent and as a matter of common sense. *See AT&T Markman* Order (Ex. 3) at 56–57. Thus, “the sequential nature of the claim steps is apparent from the plain meaning of the claim language and nothing in the written description suggests otherwise.” *Mantech Env’t Corp. v. Hudson Env’t Servs., Inc.*, 152 F.3d 1368, 1376 (Fed. Cir. 1998).

#### **IV. CONCLUSION**

For the reasons stated above, T-Mobile respectfully requests that the Court adopt its proposed claim constructions.

DATED: May 5, 2021

**GIBSON, DUNN & CRUTCHER LLP**

/s/ Josh A. Krevitt

Josh A. Krevitt  
New York Bar No. 2568228  
Benjamin Hershkowitz  
New York State Bar No. 2600559  
Katherine Q. Dominguez  
New York Bar No. 4741237  
Paul J. Kremer  
New York Bar No. 4900338

**GIBSON, DUNN & CRUTCHER LLP**

200 Park Avenue  
New York, New York 10166-0193  
Telephone: (212) 351-4000  
Facsimile: (212) 351-4035  
[jkrevitt@gibsondunn.com](mailto:jkrevitt@gibsondunn.com)  
[bhershkowitz@gibsondunn.com](mailto:bhershkowitz@gibsondunn.com)  
[kdominguez@gibsondunn.com](mailto:kdominguez@gibsondunn.com)  
[pkremer@gibsondunn.com](mailto:pkremer@gibsondunn.com)

Robert Vincent  
Texas State Bar No. 24056474  
Nathan R. Curtis  
Texas State Bar No. 24078390  
Audrey Yang  
Texas State Bar No. 24118593

**GIBSON, DUNN & CRUTCHER LLP**

2001 Ross Avenue  
Dallas, Texas 75201-2923  
Telephone: (214) 698-3100  
Fax: (214) 571-2900  
[rvincent@gibsondunn.com](mailto:rvincent@gibsondunn.com)  
[ncurtis@gibsondunn.com](mailto:ncurtis@gibsondunn.com)  
[ayang@gibsondunn.com](mailto:ayang@gibsondunn.com)

Melissa R. Smith  
Texas State Bar No. 24001351  
**GILLIAM & SMITH, LLP**  
303 South Washington Avenue  
Marshall, Texas 75670  
Telephone: 903.934.8450  
Facsimile: 903.934.9257  
[melissa@gilliamsmithlaw.com](mailto:melissa@gilliamsmithlaw.com)

*Counsel for Defendants T-Mobile US, Inc.  
and T-Mobile USA, Inc.*

**CERTIFICATE OF SERVICE**

I certify that the foregoing document was served electronically on May 5, 2021, on all counsel who have consented to electronic service.

/s/ Nathan Curtis